

REMARKS

The claims have been amended to focus them on the LC display containing the multilayer film rather than on the film itself, as in original Claim 33. Claim 1 has been amended by inserting the word “fixed” to make it clear that the liquid crystal layer is not an electrically switchable fluid layer like an LC imaging cell, but is a fixed (e.g. crosslinked) layer where there is no switchability between orientations. Support may be found at page 12/ln 16; 17/1; and 19/5. The layer is described as cross-linked (fixed) at page 13/1; 13/20; 14/17; and 15/18. The term “fixed” means that the material is not free to change position as would a liquid crystal in a liquid medium such as an imaging cell itself.

The term “aligned” means that the material throughout the layer is ordered in a particular orientation. The presence in the layer of a predetermined amount of a Lewis acid enables one to establish the desired degree of tilt in the film layer upon fixing or curing. The alignment is measurable in terms of the tilt angle and the ability to control this angle using the amount of Lewis acid is key to the invention. Note in each of the Tables for Examples 2-5 of the specification that the tilt angle increases as the amount of Lewis acid is increased.

Claims 25 and 28 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 25, the Examiner notes that the word “preferably” is indefinite. The preferred clause has been stricken.

In Claim 28, the Examiner notes that claim language “Lewis acid salts or compound according to claim 1” is vague because the “compound” in claim 1 is not defined. Applicants have amended claims 28 and 30 to remove the “compound” language in favor of the “Lewis acid” language (defined at page 4/ln3.) The specification and all of the inventive examples teach how to use the amount of Lewis acid addition to control the resulting tilt angle of the fixed liquid crystal polymer.

Claims 27-30 stand rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the liquid crystal layer, does

not reasonably provide enablement for the polymeric liquid crystal layer.

According to the Examiner:

The specification does not enable any person skilled in the art to which it pertains, or with which it is mostly nearly connected, to make and use the invention commensurate in scope with these claims. There is no teaching in the specification how one ordinary skill in the art to use "polymeric" liquid crystal layer comprising a Lewis acid salt or compound to improve tilt angle.

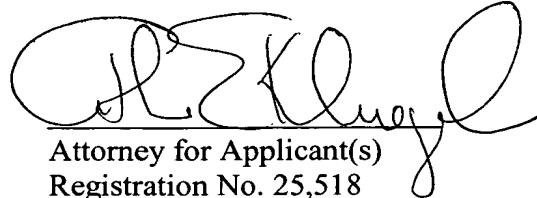
As indicated in the preceding paragraph, the "compound" language has been deleted. It appears that the Examiner is concerned about the word "polymeric" as far as enablement is concerned. Liquid crystals may or may not be polymeric but it is believed that the enablement of the description and the examples is sufficient for either so long as the materials can be fixed e.g. via cross-linking. The word polymeric has been stricken.

Claims 1-12, 20-21, 25-26, 31 and 33 stand rejected under 35 U.S.C. 102(b)/(e) as being anticipated by Tsuboyama et al. (US 2002/0180925 or US 6,737,127). Claims 1, 15-16, 20-21 and 31-33 stand rejected under 35 U.S.C. 102(b) as being anticipated by Fukai et al. (US 3,979,319). Claims 1-4, 8-12, 20-21, 31 and 33 stand rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. (US 3,894,793).

All three of these references are directed to alignment of a switchable fluid liquid crystal layer located directly between a cathode and anode. In contrast, the claimed article contains a solid layer in which the liquid crystal molecules are fixed e.g. by cross-linking. The references do not contemplate forming a multilayer film. They are directed to a fluid LC cell. The article of the present invention is a film of solid layers to be used to compensate other optical elements. The multilayer contains liquid crystal materials in fixed position in a layer and the tilt angle of the fixed position is a function of the amount of the Lewis acid that is employed in the coated film prior to cross-linking. There is no suggestion of such an article in any of the cited references. Accordingly, claim 1 and all claims dependent thereon are allowable.

In view of the foregoing amendments and remarks, the Examiner is respectfully requested to withdraw the outstanding rejection and to pass the subject application to Allowance.

Respectfully submitted,



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